

wind which was blowing in this very exposed place allowed me to secure only two of them, and they were not in prime condition; but a little further inland in a stoneyard I picked up *A. belemia* var. *glauca*. This was hardly out of the net before *C. edusa* var. *helice* attracted attention, and proved to be an extremely fine and large specimen, measuring when set 53 mm. from tip to tip of the expanded wings.

(To be concluded.)

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## A NEW GENUS OF AUSTRALIAN BEES.

By T. D. A. COCKERELL.

IN the 'Entomologist,' October, 1910, I gave an account of some small and very peculiar Australian bees. I have now received from Mr. Rowland Turner a number of specimens, including two new species which must be assigned to still another genus, remarkable for the fact that the third discoidal and second submarginal cells are completely confluent. The types will be placed in the British Museum.

### HETERAPIS, n. gen.

Small bees related to *Euryglossa*; stigma large; marginal cell pointed on costa; first submarginal and first and second discoidal cells complete; third discoidal and second submarginal confluent, the nervure which should separate them wholly absent; lower section of basal nervure arched, falling far short of transversomedial; claws in female cleft, pulvillus large; anterior tarsi with modified hairs; suture between clypeus and supraclypeal area obliterated. Type *H. delicata*, n. sp.

#### *Heterapis delicata*, n. sp.

♀. Length about  $3\frac{1}{2}$  mm.; elongate, black, with hyaline wings; mandibles and labrum pale reddish, as also apical middle of clypeus; mandibles dark and bidentate at apex; inner orbits very narrowly margined with yellow; antennæ pale beneath, including a stripe on scape; abdomen faintly purplish, the first segment smooth, the others microscopically transversely lineolate. Ocelli large, in a triangle; head oblong, like some Proctotrypid; mesothorax very minutely punctured and lineolate; metathorax elongated, longer than broad, with a large upper surface, which is microscopically cancellate; abdomen not much longer than thorax. Anterior tibiæ yellow in front; hind tibiæ with base broadly yellowish-white; anterior tarsi pale reddish, beneath with curious thick subclavate hairs; claws bifid at end; pulvillus very large. Base of mandibles making an angle with base of eye, as in *Turnerella*; facial foveæ linear; clypeus not defined above, but from its lateral sutures evidently very high, its upper suture wholly wanting, its surface with sparse minute piliferous punctures and feeble microscopical lineolation; antennæ 12-jointed,

joints beyond the fourth with small oval whitish pits; long branched hairs on abdomen beneath near end, and short plumose ones about tubercles. Stigma and veins dark brown, well formed; in the following account of the wing the measurements are in microns (the same also under the next species); stigma very large and deep, its depth 153; marginal cell sharply pointed on costa, its length on costa 357, its lower side beyond the submarginal cells slightly arched inward; first submarginal long, its length 290; second submarginal on marginal 85, its lower side absent; upper section of basal nervure 34, lower (not allowing for the curve) 220; basal nervure from transversomedial 60, the latter oblique, and bent at its lower end; first recurrent nervure joining first submarginal cell 12 from its end.

*Hab.*—Mackay, Queensland, December, 1899 (*Turner*, 388).

*Heterapis sculpta*, n. sp.

♀. Length about 4 mm.; slender; head and thorax black, abdomen shining rufopiceous; tubercles margined with yellow; mandibles ferruginous, dark at extreme base, feebly bidentate at apex; labrum dark; scape in front and flagellum beneath pale yellowish-ferruginous; knees, anterior tibiæ, middle and hind tibiæ at base and apex, and all the tarsi, pale ferruginous; wings hyaline, very iridescent, nervures and stigma dark brown; tegulæ brown. Clypeus and adjacent sides of face microscopically tessellate, with large shallow punctures; clypeus very long, separated from the supraclypeal area by a slight depression, but no suture; supraclypeal area finely longitudinally striate; a fine longitudinal keel between antennæ and reaching far up front; ocelli large, middle ocellus 100  $\mu$  diameter; front very strongly punctured; second antennal joint oval, fourth and fifth very short; flagellum stout, subclavate, the penultimate joint 135  $\mu$  diameter; mesothorax shining, strongly and very regularly punctured; abdomen beyond first segment finely transversely lineolate; metathorax microscopically reticulate. Claws deeply bifid, pulvillus large; anterior tarsi with hooked bristles; hair on under side of abdomen branched on one side. Stigma large, only moderately deep, its depth 153; second submarginal and third discoidal cells completely confluent; upper section of basal nervure 102; lower section very strongly arched, falling 135 short of transversomedial; marginal cell 714 long, pointed on costa; first submarginal 460; second submarginal above 93, its lower side absent.

Compared with *H. delicata*, this is considerably larger; the head is differently shaped, being broad above, with the eyes strongly converging below; the metathorax is much less elongated, and is rounded in lateral profile (angular in *delicata*); the abdomen is broadest about the base of the second segment, whereas in *delicata* it is broadest about the middle of the third.

*Hab.*—Mackay, Queensland, May, 1900 (*Turner*, 1087).

*Euryglossa perpusilla*, Ckll., 1910.

Mr. Turner sends me several females of this species (*Turner*, 1085). The orange supraclypeal band is sometimes absent.

One specimen has a *Turnerella*-like venation, with only one submarginal cell and two discoidals. The shape of the remaining submarginal is as in *E. perpusilla*, not at all as in *Turnerella*.

*Bombus bicoloratus*.—In my note on this species, p. 101, I used the customary sign for workers, but for some reason the printer desired to spell it out, and rendered it "hermaphrodites."

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## NEW SPECIES OF SYNTOMIDÆ FROM BRITISH GUIANA AND SOUTH BRAZIL.

BY W. J. KAYE, F.E.S.

### *Pterygopterus flavicornis*, n. sp.

♀. Blue-black; antennæ orange, blackish close to base. Abdomen with metallic-blue patches at base, and an ill-defined lateral stripe of metallic spots. Fore wing with the outer marginal half dull blackish, the remainder of wing deep green. The median vein and upper discocellular bright blue-green. Hind wing dark shot blue-green. Under side of both fore and hind wings suffused with brilliant metallic-green, the veins at the margin of wings only so coloured, the interspaces black. Differs only from *P. clavipennis* (male) in the antennæ, which are wholly orange in the insect now described, while *clavipennis* has only the tips orange. Expanse, 56 mm.

The shape of the hind wing is totally different, but is probably a sexual difference. The female of *P. clavipennis* is unknown.

*Hab.* Potaro River, British Guiana, June 18th, 1904 (C. B. Roberts).

### *Pseudosphex polybia*, n. sp.

Head black. Thorax black. Eyes finely white-ringed. Antennæ blue-black for basal two-thirds, the slender apical third dead black. Abdomen black, with an oblique whitish streak on attenuated basal segment at side. Fore wing yellowish hyaline, with the costa broadly suffused with brownish. Hind wing more yellowish hyaline. Legs yellow, with the inside of femur velvety black. Expanse, 26 mm.

*Hab.* Castro, Parana, Brazil, April 14th, 1910 (W. J. Kaye).

### *Pseudosphex jonesi*.

Head black; eyes narrowly ringed with white. Antennæ purplish for basal two-thirds, brownish for the attenuated apical third. Abdomen shining brown above, ringed with yellow beneath. Wings hyaline with a tinge of yellowish. Legs yellowish, the femora darker. Expanse, 20 mm.

*Hab.* Alto da Serra, Santos, Brazil, March 6th, 1910 (E. D. Jones).